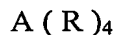


Liquid and Method for Liquid Immersion Lithography

SUMMARY

The present invention relates to a new class of compound useful as liquid for immersion lithography, said liquid comprising molecules so that said liquid is substantially transparent at a wavelength used for said liquid immersion lithography, wherein a degree of polarization of light, which is incident on a sample of said liquid in a forward direction and which is scattered in a direction perpendicular to said forward direction within a plane of scattering defined by said forward direction and said direction perpendicular to said forward direction, is larger than 0.9. Suited liquids are, for example, such comprising molecules transparent to UV radiation, wherein said molecules are high-symmetric molecules. Suited compounds are defined by



wherein A is defined to be a 4-valent element and R is selected from $-(C)_n$ - and $-(Si)_n$ -, with $n = 1$ to 10, wherein the remaining valences of the carbon or silica are saturated by one (or more) selected from hydrogen and a halogen.

The invention further relates to a method for exposing a photoresist layer on a semiconductor substrate for producing microelectronic circuits or micro-electromechanical systems (MEMS). The method uses a step of liquid immersion lithography using a liquid according to the invention.